



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,235	07/19/2001	George F. Ramsay III	AUS920010366US1	8703

7590 08/05/2004
Kelly K. Kordzik
5400 Renaissance Tower
1201 Elm Street
Dallas, TX 75270

EXAMINER

TUNG, KEE M

ART UNIT	PAPER NUMBER
----------	--------------

2676

DATE MAILED: 08/05/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/909,235

Applicant(s)

RAMSAY ET AL.

Examiner

Kee M Tung

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The response filed 5/20/04 has been considered in preparing this Office action.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rao et al (WO 97/06523 hereinafter "Rao") in view of Kato et al (5,801,705 hereinafter "Kato") and Nishio et al (6,038,034 hereinafter "Nishio").

Rao teaches a method for allocating memory space (Fig. 1 and respective areas of the specification) comprising the steps of allocating said memory space as a plurality of frame buffers (at least two buffers for double buffering or single buffered stereo). It is noted that the more memory allocated to the frame buffers, the less memory is available for the CPU. It is noted that Rao does not teach or suggest allocating four buffers or double buffered stereo. It would have been obvious to one of ordinary skill in the art at the time the present invention was made to allocate quadruple buffers or double buffered stereo in order to provide stereo display for animation. Kato teaches a graphics display unit for implementing multiple frame buffer stereoscopic display, a single buffered stereo (Fig. 1, one buffer per eye) and a double buffered stereo (Fig. 3, double buffers per eye). It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of Kato into Rao in

order to provide stereo display for animation as taught by Kato (col. 2, lines 35-40 and col. 9, lines 30-35). However, Kato fails to explicitly teach or suggest providing a user with selectable option to allocate said memory space as a double buffered stereo or single buffered stereo. Kato teaches a user can selected to configure in single buffered stereo (Fig. 1) or double buffered stereo (Fig. 3). Nishio teaches a system and method for allocating memory space as a double buffer mode or single buffer mode by a command released from the host computer (col. 6, lines 26-31). It is noted that Nishio does not mentioned the command from the host computer is user selectable option. However, as one of ordinary skill in the art would recognized that in order for the host computer to send a particular command, there must be some predetermined conditions, either by software operation or user operation and a user can always over power or reset the predetermined condition. Therefore, it would have been obvious to one of ordinary skill in the art at the time the present invention was made to that the command sent from the host could be implemented as the claimed user selectable option. It would have been obvious to one of ordinary skill in the art at the time the present invention was made to combine the teachings of Nishio into the combination of Rao and Kato in order to provide the system and method with optional selection for the user to select either single buffered stereo or double buffered stereo as taught by Kato (Figs. 1 and 3; col. 2, lines 35-40 and col. 9, lines 30-35). Therefore, at least claims 1 and 2, 5 would have been obvious.

As per claims 3 and 4, Rao fails to explicitly teach or suggest setting a flag to indicate that the memory is allocated as single or double buffered stereo. However, It

would have been obvious to one of ordinary skill in the art at the time the present invention was made to implement the teachings of memory allocation of Rao as claimed in order to more efficiently operated and used the memory allocation operation.

Claims 6-10 are similar in scope to claims 1-5, and thus are rejected under similar rationale.

Claims 11-15 are similar in scope to claims 1-5, and additionally required a graphics adapted (inherently or obvious in view of any well know graphics system to include a graphics adapted), and thus are rejected under similar rationale.

Claims 16-22 and 23-29 are also similar in scope to claims 1-5, and thus are rejected under similar rationale.

Claims 30-36 are also similar in scope to claims 11-15, and additionally required to allocated memory space in frame buffer which also would have been obvious in view of UMA of Rao because in UMA, all the memory space can be allocated to the plurality of frame buffers and thus is considered as frame buffer memory and thus are rejected under similar rationale.

Response to Arguments

3. Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

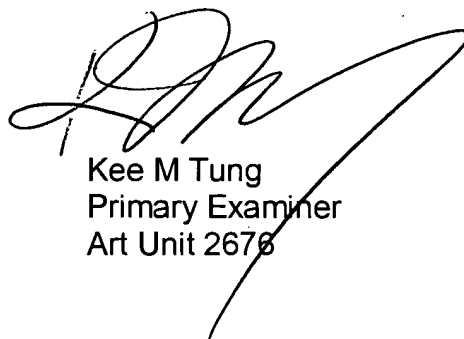
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kee M Tung whose telephone number is 703-305-9660. The examiner can normally be reached on Tuesday - Friday from 5:30 am - 4:00 pm.

Art Unit: 2676

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kee M Tung
Primary Examiner
Art Unit 2676